



UPI Photo

**DR. PETER WITT CHECKS SIZE OF WEB**  
Pair of 'Cross Spiders' Now in Space

Human Constitution

# Jeepers... Creepers In Outer Space

RALEIGH, N.C. (UPI) — Spiders are on the second Skylab mission to test the effects of zero gravity and how space travel affects behavior.

Dr. Peter N. Witt, consultant to NASA on the unusual experiment, says it's hoped the webs the spiders spin inside the orbiting space station will tell scientists more about those factors.

Witt, 54, an internationally known researcher on spiders and human behavior, said two female "cross spiders" were chosen for the experiment because "no other animal provides us with such a predictable and meaningful record of behavior."

Witt, research director for the North Carolina Department of Mental Health, has spent more than 25 years studying the effects of such drugs as alcohol and LST, as well as environment, on the web building of spiders and how the changes relate to human behavior patterns.

Spider webs that housewives frequently sweep from their ceilings are studied in minute detail by Witt and his research associate, Mabel Scarborough.

Using intricate devices, Witt measures the size, spirals and designs of webs and then feeds the information into a computer. The computer then provides him with data to analyze the behavior of the spider under both normal and abnormal conditions.

NASA contacted Witt, a native of Bern, Switzerland, about the spider experiment in 1971, after the idea was suggested in a nationwide contest the agency sponsored to

get ideas for Skylab research projects.

NASA already has conducted simulated tests with spiders supplied by Witt to measure the effects of all conditions on them except weightlessness, the scientist said.

The astronauts are carrying the spiders into space in small boxes and in already prepared cases surrounded by lights and photographic equipment. While in space, the spiders will be fed by the astronauts, who have been trained in experimenting with spiders.

Should the spiders weave webs during the flight, Witt said, the cameras will transmit pictures of their actions to earth.

Witt has supplied NASA with a computer program of web building, which will be used to measure any changes or effects that space travel has on their normal pattern of weaving.

Even though spiders have been instinctively building webs since the beginning of time, Witt says in space the spiders "may just sit in a corner and sulk and do nothing."

Web building is an "innate" form of behavior for the spider since it is his means of securing food, the scientist said. Normally, the cross spider builds a different web every 24 hours.

However, he said, "weightlessness is a problem no spider has ever had to face."

NASA's official plan does not call for the return of the two spiders to earth, but Witt hopes the agency will change its plan. He feels the experiment will not be complete unless their behavior can be observed following a long period in zero gravity.